Project Connections
Improving Access in Vulnerable Communities

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Overview

Project Connections, a project initiated by the Behavioral Health Leadership Institute in partnership with Baltimore Mental Health Systems and Johns Hopkins Bayview Medical Center is a model for bringing accessible, high-quality care to extremely vulnerable communities in the city. BHLI developed the model for Project Connections to treat depression, anxiety, PTSD and demoralization in partnership with communities because to do so is critical to the success of building sustainable healthy communities. Youth violence, gangs, increased jail days, suicides, homicides and poverty are symptomatic of broken communities. It is imperative to treat these diseases among adults because the impact of these diseases falls not only on the individuals themselves but also on their children, thus creating a generational cycle of despair. Research shows conclusively that maternal depression provides an effective but lethal incubator for later problems of violence, depression and substance abuse among the children of those mothers.

For these reasons, Project Connections is predicated on integrating appropriate mental health services into these vulnerable, high-poverty communities in ways that encourage accessibility - both logistically and culturally. Logistically we improve access by co-locating services in existing community centers. Culturally, the Project team works to break down barriers of deep distrust by building trust and becoming an integral part of the larger community.

The Project staff worked hard for the first two years of implementation to break down the barriers of distrust and stigma. At each site, different approaches were required to create the appropriate infrastructure and mix of services. We now provide not only outreach, home visits and individual therapy but also informal education groups on anger management, parenting, effective relationships with the schools, the impact of depression on children and so forth. Finally these efforts are paying off. Not only are the two social workers carrying a full caseload, but at each site we have been asked to expand services.

Initial Project outcomes show that the Project is impacting the community by reducing symptoms of depression as evidenced by scores on the PHQ-9 and increasing positive measures such as employment and linkages to physical health care. Emerging longitudinal statistics, though currently based on a small cohort, are showing a movement towards decreased violence and victimization by the clients. Diagnostic profiles show not only major depression and PTSD but also a high incidence of bipolar diagnoses. The profiles also describe an extremely fragile and vulnerable populace with low educational levels but high incidences of co-occurring substance use disorders and somatic disorders and very high levels of arrest and violence. Evidence, based on qualitative interviews conducted by the evaluation team at the Johns Hopkins Bayview School of Public Health, describes increased parental attentiveness to school issues and other improvements in parenting skills at each of the sites and an increase in the willingness to accept that treatment might provide hope.

The Project is having a systemic impact by offering a new model for delivering services to these fragile communities and also in developing a peer community mental health outreach workforce. At each site, para-professionals and community leaders are trained in the basics of behavioral health so that they can work as partners in outreach and trust-building. Additionally, students at the UMD school of social work, Johns Hopkins medical school as well as the Johns Hopkins School of Public Health are actively engaged in the Project and are learning about the issues involved in providing services in community sites. Finally, several new programs are emerging modeled on the Project Connections approach and networks are developing among the community network. As the Project expands, MHPILT will continue to build and strengthen these networks and act as a technical assistance resource for similar projects.

Urban communities with a high incidence of poverty are complex, traumatized, fragile and under-served. Integrating culturally appropriate and effective mental health treatment is absolutely necessary but extremely difficult. It takes years to break-though the barriers and develop partnerships. Project Connections has accomplished that critical goal and now has the community ready to become full partners in working for change. But the project is currently at a critical juncture: it is time to replace private foundation funding for the existing services with more permanent public dollars and at the same time expand our funding base so that we can expand to bring this project to scale and provide a transformative model to address the serious mental health needs of these highly vulnerable communities.

Model

- Central project management:
  - contract with clinical provider,
  - maintain model fidelity,
  - develop and support sites,
  - coordinate training,
  - data collection, monitoring and evaluation
- Roving clinical team to partner sites
  - part-time psychiatrists, LCSW-C social workers, case manager
  - Team travels to sites
  - Individual treatment, formal group treatment
  - Informal educational groups

- Additional services: peer staff training, site support, relationship building

Barriers and Lessons Learned

The individuals we are serving have very complex needs integrating culturally appropriate and effective mental health treatment into these communities is rewarding but difficult. The challenges differ from site to site, yet have common characteristics.

> "Patience is the most important thing in working with this population... it takes time."
>
> *Clayton Guyton, Director of the Rose Street Community Center*

In the Healthy Start population [pregnant and post-partum women], stigma is a tremendous barrier. Focus groups showed that even the outreach workers and case managers are skeptical of mental health treatment. Thus it is necessary to build trust with the staff before trying to reach clients. To many in this community, because of their history with the Department of Social Services, any social worker is a potential enemy. To overcome the distrust and build support, we have learned to continue to provide training, incentives and site support and to increase regular communications/meetings at all levels. These steps are slowly having a positive

> Rose Street Client
> "I did an evaluation on a resident just released from prison. The individual had a significant history of abuse as a child and multiple legal problems as an adult leading to incarceration. He also had ongoing difficulties with relationships. He was suffering from anxiety and depression and was clearly having problems adjusting to the rules of the program.
>
> "Knee discomfort was making mandatory work assignments difficult; issues around authority and conforming to program requirements were coming to a head. Within a week or so of our first meeting, the patient had been asked to leave the program.
>
> "Interestingly, he still came to the Rose Street Center and asked to meet with me. He acknowledged that temper, difficulty with rules, and irritability were problems and expressed concern about relapse to drug use. He again noted his concerns related to poor relationships with women. I advised him to follow the treatment plan we had developed during the first meeting.
>
> "What was interesting was that in the face of non-compliance with the living and work situation, he still engaged with treatment, at least on a level that allowed him to approach me to express his concerns."
>
> *Description by Psychiatrist*

impact; the attitudes of several case managers and the nurse are now very positive about the program.

In the sites with a large community re-entry population, the impact of long-term incarceration carries its own set of issues and challenges. Weekly meetings between key project staff and site staff are improving our understanding of how to facilitate effective treatment in this environment. Before this project, the men would take medications in prison and be released with a thirty day supply, with no provisions for follow-up care, prescription renewal, or therapeutic support for reentry. Now, they can see someone immediately, have an evaluation and be quickly linked into services. In fact, in the past few weeks at Rose Street, each man has seen the Bayview staff within a week of leaving prison.

These are tenuous communities where peoples' lives are in constant upheaval; turmoil and violence is an everyday affair. As a project, we are trying to remove those barriers over which we have some control and work around limitations over which we have no control. For example, at Healthy Start, it will help to have a driver bring people to appointments and pre-paid cell phone cards help with communication for appointments. The social worker and the psychiatrist are now going out with the nurse and neighborhood health advocates to do home visits. Group meetings will be staffed by babysitters. These ideas come from brainstorming sessions and monthly meetings with Healthy Start staff.

In terms of organizational stability, the sites are challenging. Providing professional services within grassroots organizations means that we must be sufficiently flexible to adapt to constant crises and changes in staffing and control. Life events in the community impact the site and the community programs are often as vulnerable as the community itself. Yet, it is the partnership with these sites that promotes true access to care.

To summarize:

- There is an immense unmet need for mental health care.
- These are vulnerable communities being served by somewhat fragile organizations.
- Integration of psychiatric care into such settings is difficult but valuable.
- Cross-training between project and site staff is imperative.
- Project staff must learn the unique cultural ecology of each site.

Project Connections
Data Report
April 2009

INTRODUCTION

This Report covers the period November 2008 through the end of April 2009. During this time period, Project Connections has expanded to six active treatment programs. These sites include the original sites of Rose Street Community Center, Healthy Start-East Side and remaining clients from the Mens Health Center site. The new sites are Healthy Start – West Side, Harriet Lane, Dee's Place and the Youth Shelter and Outreach Program at Rose Street. This report does not include any data about the Youth Shelter and Outreach program. The team is still developing the data collection framework for this aspect of the program. However, at the end of the data report, there are summaries of the Youth Project and the Phase II evaluation.

DATA REPORT

The data Report includes the following sections:

- April 2009 client demographics and trends
- Baseline characteristics of new clients after November 2008
- Comparison of baseline characteristics of clients from original vs. new sites
- Summary of discharged clients thru April 2009

The number of total active clients as of April 2009 is 97. The number of clients who remain active and enrolled since November, 2008 through April, 2009 is 64.

April 2009 client demographics and trends

At present, Project Connections serves close to **100 clients**. Baseline demographic characteristics of active, recently discharged and new clients in April 2009 are provided below.

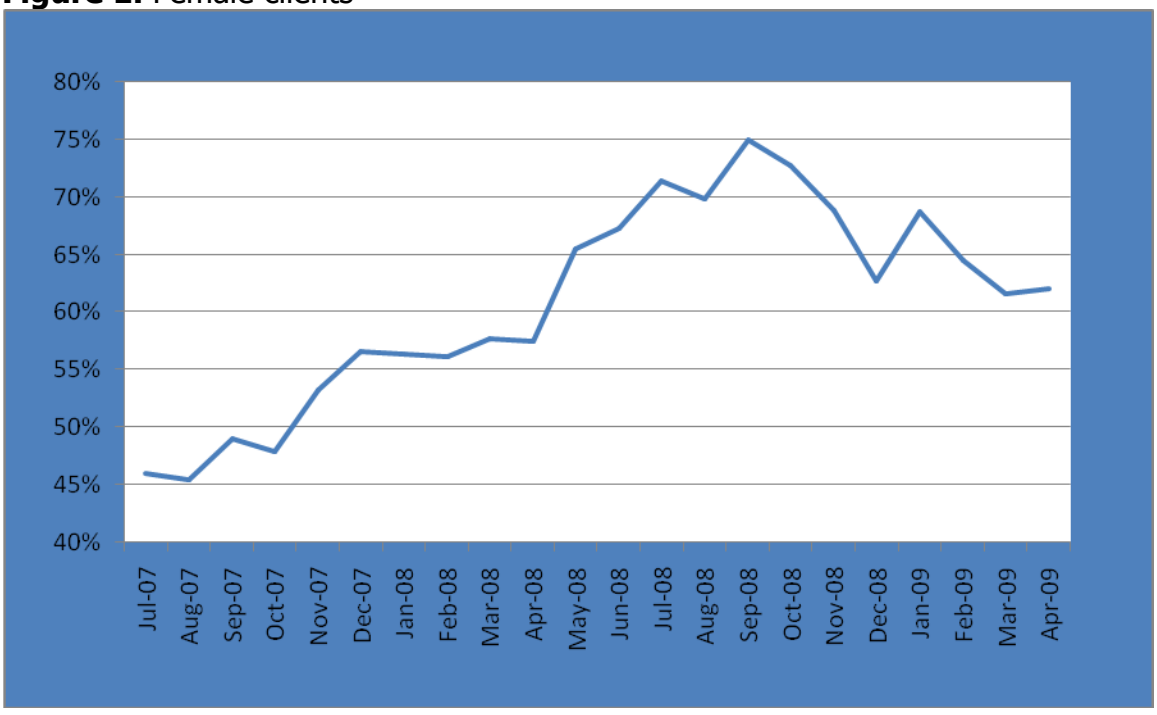
Site	Active	Discharged	New	Female	Mean age (years)
Rose Street	31	1	2	41%	38
Healthy Start*	30	2	8	97%	29

Men's Health Center	6	0	0	0%	41
Dee's Place	12	0	1	42%	40
Harriet Lane	5	0	2	100%	28
All clients	**84**	**3**	**13**	**62%**	**35**

** Eastside and Westside locations*

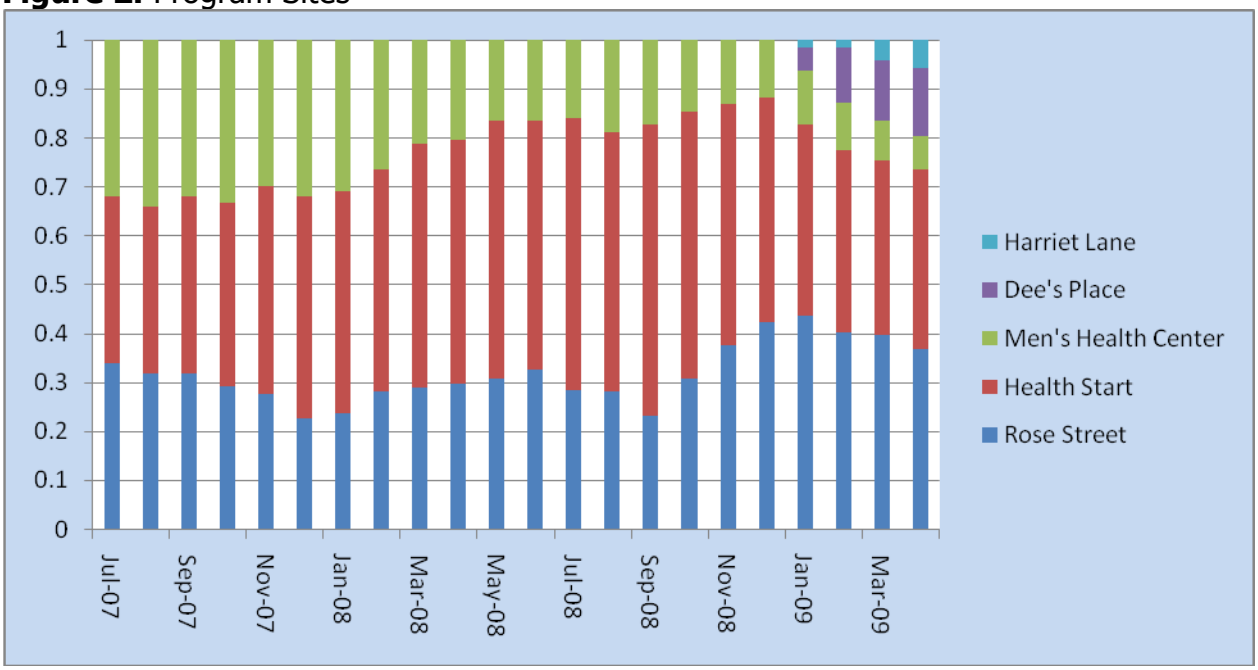
The following figure provides the proportion of female clients served by Project Connections over a two year period. In the most recent months, the ratio of female to male clients has declined somewhat, most likely due to the addition of clients from the new program sites.

Figure 1. Female clients



The following figure provides the proportion of clients served in each of the Project Connections' partner sites over a two year period. The proportion of clients seen at Harriet Lane and Dee's place continued to grow over the last several months.

Figure 2. Program Sites



II. Baseline characteristics of new clients after November 2008

The following section details clients' status at the start of their participation in the Project Connections program. This section follows a similar format to that presented at the last Project Connections' meeting, during which baseline data were presented on 125 clients who had participated in Project Connections from July 2007 thru October 2008. The information presented in this section reflects data collected on **64 new clients** who began receiving services from Project Connections after the first of November 2008. As of the end of April 2009, none of these clients had been discharged.

Characteristics of new clients at entry into program

The first set of tables and figures illustrate baseline characteristics of this group of Project Connections' clients. They are presented for all new clients over the last six-month period as well as by sex and by program site. Sixty-three percent of the clients was female (n=40). Thirty-five percent of the clients was from Rose Street Community Center (n=22), 33% from Healthy Start (n=21), 21% from Dee's place (n=13), and 11% from Harriet Lane (n=7). Client mean age was 33.8 years. Female clients averaged 30.1 years, whereas male clients were significantly older at 39.8 years ($p<.001$). Clients from Dee's place were the oldest (mean age 40.0 years), followed by clients from Rose Street (34.1 years), Healthy Start (31.4 years) and Harriet Lane (29.6 years).

Table 1. Characteristics of new Project Connections clients (n=64)

Vocational Status	
Employed	14%
Fulltime employment	63%
Education	
High school diploma	33%
GED	19%
Education beyond high school	29%
Ever received special education	18%
Housing	
Independent/renting	37%
Transitional	19%
Recovery	3%
Living with family or friends	28%
Section 8	3%
Shelter Plus Care	3%
Shelter	6%
Entitlements	
Any entitlements	66%
Medical assistance	50%

Temporary cash assistance	31%
Food Stamps	54%
Women, Infants & Children (females)	34%
Pharmacy Assistance	11%
Social Security Disability Insurance	6%
Supplemental Security Income	8%

Figure 3. Housing status at start of program

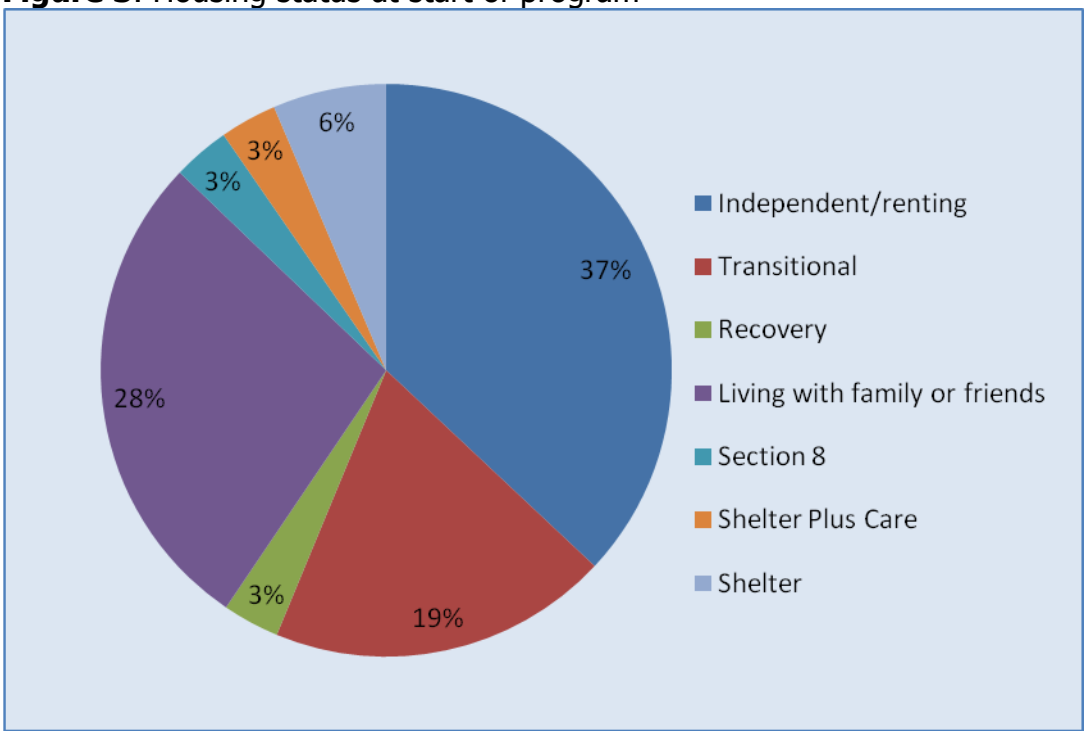


Figure 4. Education history

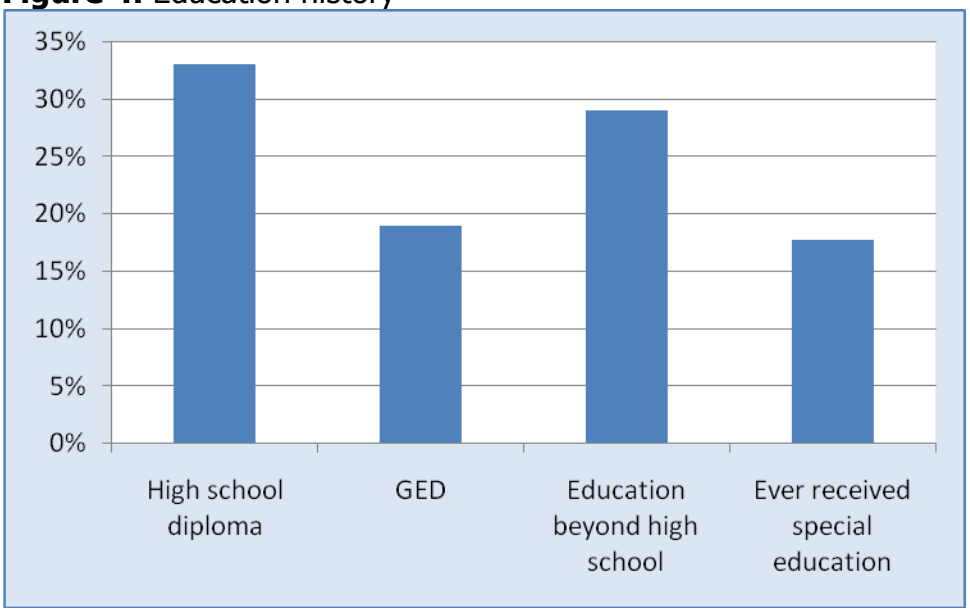


Table 2. Characteristics of Project Connections clients by sex

	Male (n=24)	Female (n=40)	*P*-value
Vocational Status			
Employed	29%	5%	.011
Fulltime employment	57%	100%	.625
Education			
High school diploma	29%	35%	.395
GED	38%	8%	.008
Education beyond high school	29%	29%	.602
Housing			
Independent/renting	38%	37%	
Transitional	38%	8%	
Recovery	8%	0%	
Living with family or friends	0%	45%	
Section 8	0%	5%	
Shelter Plus Care	4%	3%	
Shelter	13%	3%	<.001
Entitlements			
Any entitlements	17%	97%	<.001
Medical assistance	4%	79%	<.001
Temporary cash assistance	8%	45%	.002
Food Stamps	13%	79%	<.001
Women, Infants and Children	-	56%	-
Pharmacy Assistance	25%	3%	.011
Social Security Disability Insurance	0%	13%	.078
Supplemental Security Income	4%	8%	.495

** Fisher's Exact test for significant differences in proportions at p=.05 level*

Figure 5. Entitlements status at start of program

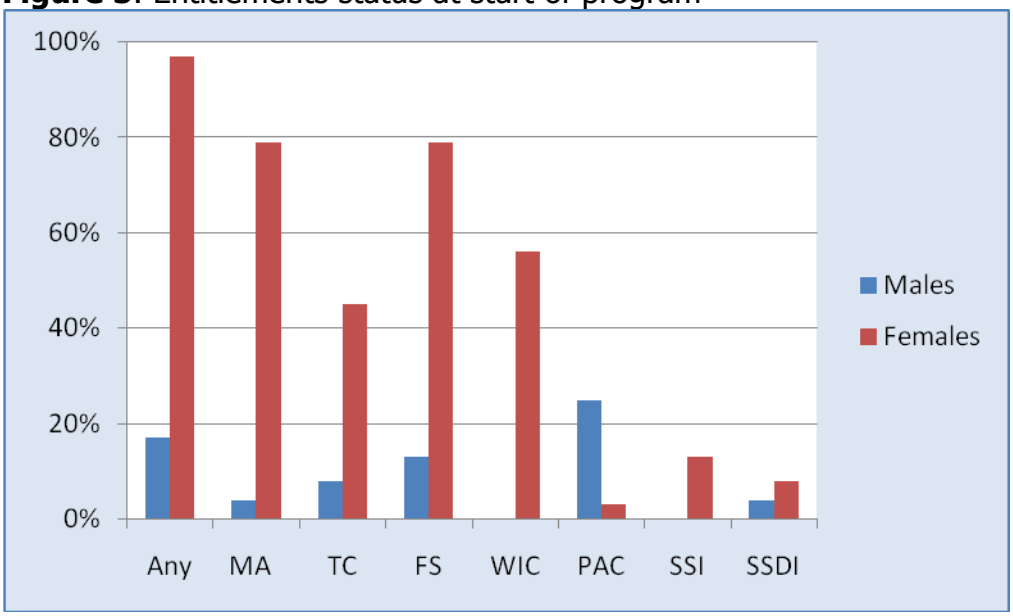


Figure 5 Key:
MA = Medical Assistance
TC = Temporary Cash Assistance
FS = Food Stamps
WIC = Women, Infants & Children
PAC = Prescription assistance
SSI= Supplemental Security Income
SSDI= Social Security Disability Insurance

Table 3. Characteristics of Project Connections clients by program site

	Rose Street (n=22)	Healthy Start (n=21)	Dee's Place (n=13)	Harriet Lane (n=7)	*P*-value
Vocational Status					
Employed	5%	10%	38%	14%	.050
Education					
High school diploma	29%	38%	23%	57%	.450
GED	21%	6%	38%	14%	.135
Education beyond high school	24%	20%	23%	86%	.012
Housing					
Independent/renting	10%	33%	69%	57%	
Transitional	50%	5%	8%	0%	
Recovery	10%	0%	0%	0%	
Living with family or friends	15%	44%	16%	43%	
Section 8	0%	10%	0%	0%	
Shelter Plus Care	5%	5%	0%	0%	
Shelter	10%	5%	8%	0%	.002
Entitlements					
Any entitlements	43%	85%	62%	86%	.024
Medical assistance	33%	70%	38%	57%	.088
Temporary cash assistance	14%	40%	31%	43%	.261
Food Stamps	29%	80%	50%	57%	.009
Women, Infants and Children	0%	59%	25%	71%	<.001
Pharmacy Assistance	24%	0%	8%	14%	.081
Social Security Disability Insurance	10%	5%	8%	0%	.826
Supplemental Security Income	0%	25%	0%	0%	.018

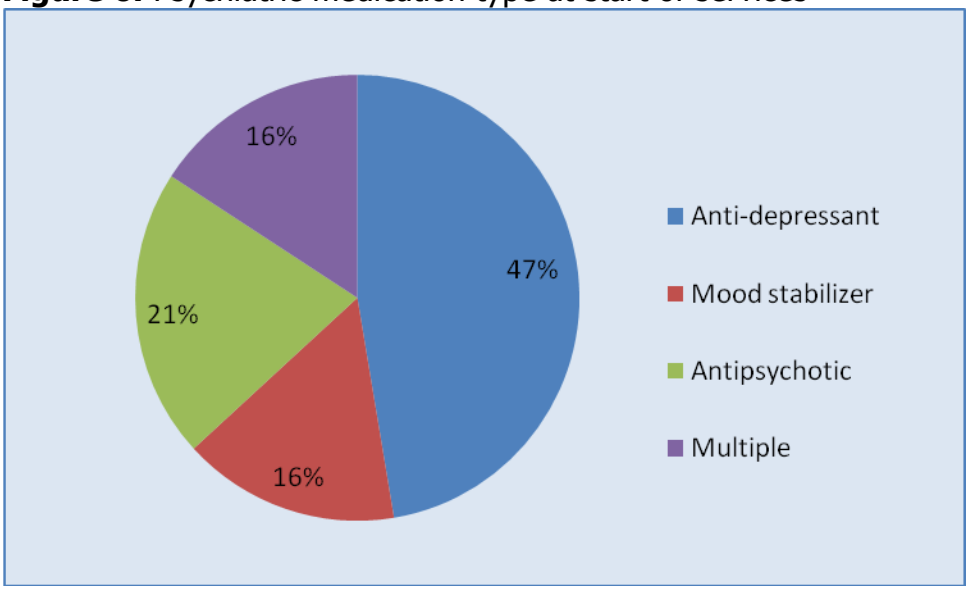
Medication and Health Service Use

The following tables and figures provide an overview of the new clients' current medication and service use histories.

Table 4. Medication and past mental health service use (n=64)

Medication and Medical Care	
Primary care provider	62%
Psychiatric medication	29%
Compliance with psychiatric medication	90%
Somatic Medication	30%
Compliance with somatic medication	94%
Mental Health Services	
Ever received outpatient treatment	66%
Ever received inpatient treatment	40%
Ever received drug treatment	44%

Figure 6. Psychiatric medication type at start of services



** Among those taking psychiatric medication only*

Table 5. Medication and past mental health service use by sex

	Male (n=24)	Female (n=40)	*P*-value
Medication and Medical Care			
Primary care provider	32%	79%	.001
Psychiatric medication	13%	39%	.139
Compliance with psychiatric medication	67%	94%	.284
Somatic Medication	10%	42%	.012
Compliance with somatic medication	100%	93%	.875
Mental Health Services			
Ever received outpatient treatment	63%	68%	.042
Ever received inpatient treatment	50%	34%	.166
Ever received drug treatment	54%	38%	.210

Figure 7. Lifetime mental health service use

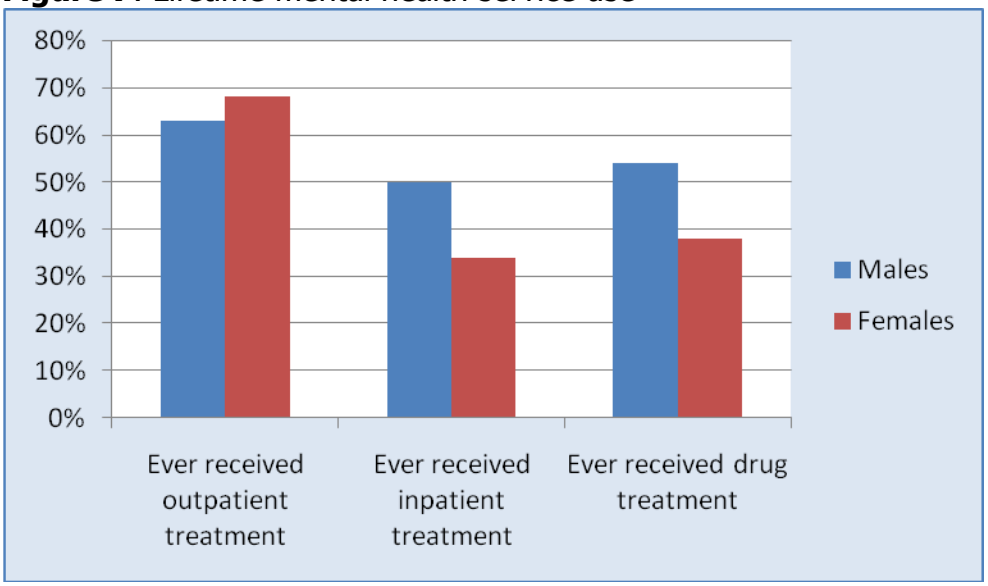
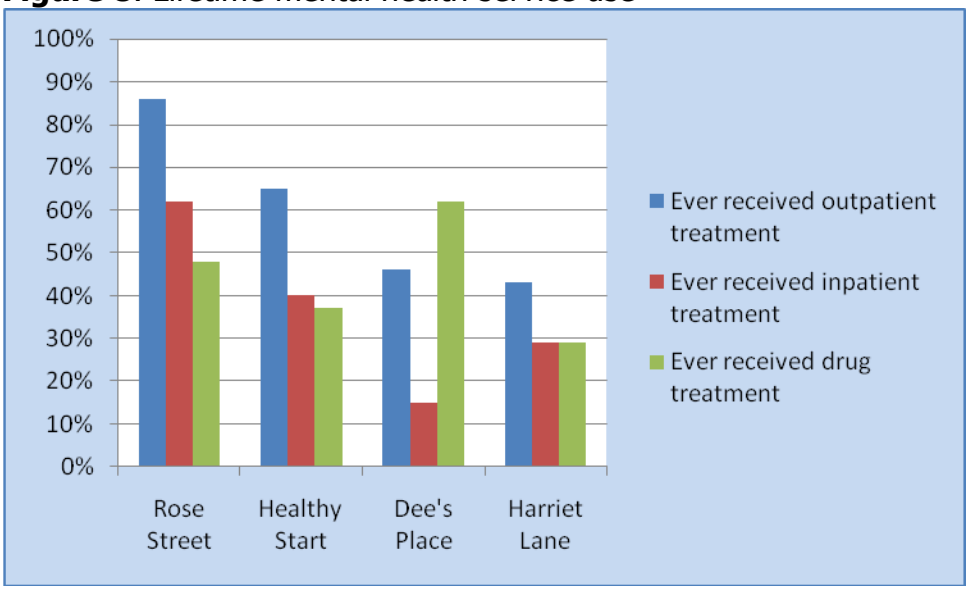


Table 6. Medication and past mental health service use by site

	Rose Street (n=22)	Healthy Start (n=21)	Dee's Place (n=13)	Harriet Lane (n=7)	*P*-value
Medication and Medical Care					
Primary care provider	43%	89%	50%	57%	.011
Psychiatric medication	19%	30%	23%	71%	.064
Compliance w/ psychiatric medication	80%	100%	75%	100%	.426
Somatic medication	25%	33%	13%	67%	.183
Compliance to somatic medication	80%	100%	100%	100%	.625
Mental Health Services					
Ever received outpatient treatment	86%	65%	46%	43%	.047
Ever received inpatient treatment	62%	40%	15%	29%	.048
Ever received drug treatment	48%	37%	62%	29%	.446

Figure 8. Lifetime mental health service use



Substance abuse and legal issues

The following tables and figures provide an overview of clients' current and past substance abuse as well as their present and past legal issues.

Table 7. Substance abuse history and current use and legal issues

Substance Abuse History	
Substances (any)	60%
Alcohol	34%
Cocaine	37%
Heroine	35%
Marijuana	42%
Other	11%
Current Substance Abuse	
Substances (any)	21%
Alcohol	15%
Cocaine	0%
Heroine	0%
Marijuana	10%
Other	0%
Legal Issues	
Legal issues	18%
Parole or probation	29%
Ever arrested	42%
Ever victim of violence	63%
Ever perpetrator of violence	28%

Table 8. Substance abuse history and current use and legal issues

	Male (n=24)	Female (n=40)	*P*-value
Substance Abuse History			
Substances (any)	79%	47%	.012
Alcohol	58%	18%	.002
Cocaine	50%	29%	.081
Heroine	54%	24%	.015
Marijuana	67%	26%	.002
Other	25%	3%	.011
Current Substance Abuse			
Substances (any)	25%	18%	.378
Alcohol	22%	11%	.203
Marijuana	9%	11%	.594
Legal Issues			
Legal Issues	33%	8%	.014
Parole or probation	67%	5%	<.001
Ever arrested	46%	39%	.408
Ever victim of violence	46%	75%	.022
Ever perpetrator of violence	63%	78%	.145

Figure 9. Lifetime history of substance abuse

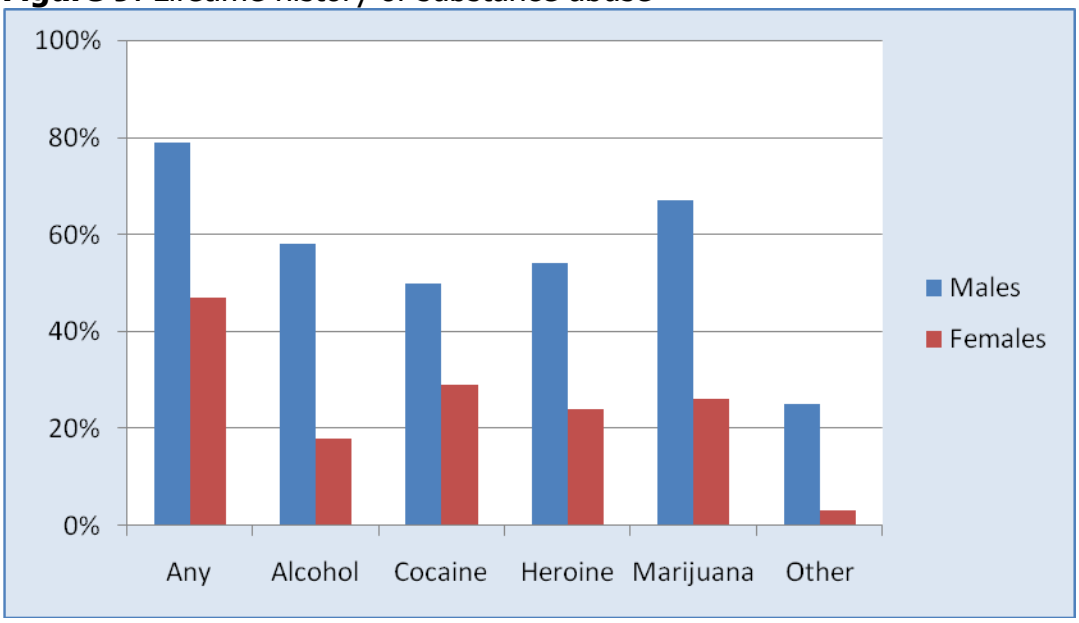


Figure 10. Past and present legal issues

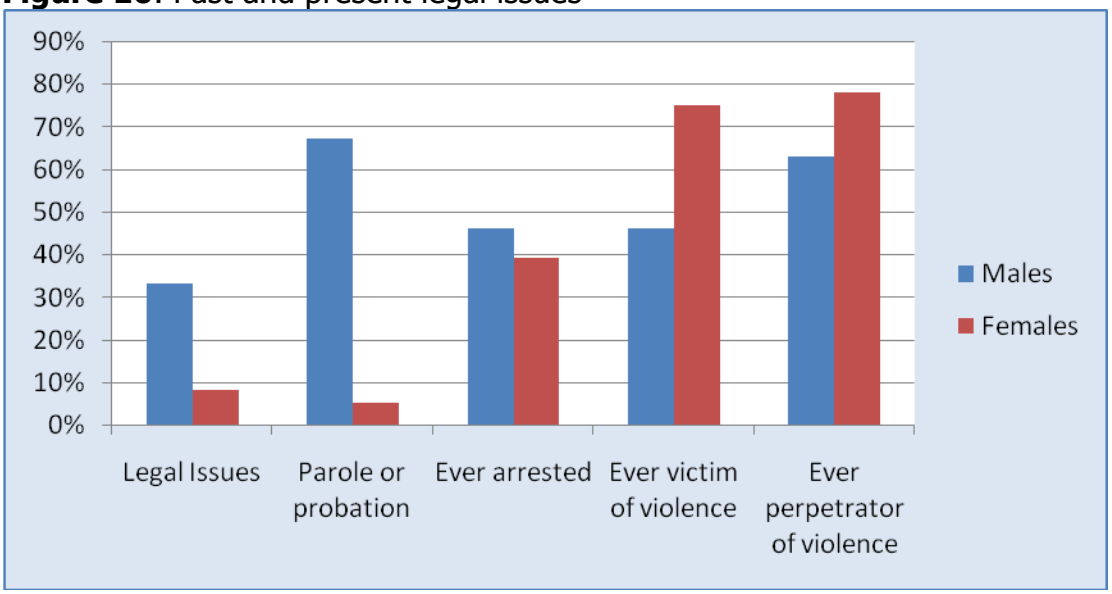


Table 9. Substance abuse history and current use and legal issues

	Rose Street (*n*=22)	Healthy Start (*n*=21)	Dee's Place (*n*=13)	Harriet Lane (*n*=7)	*P*-value
Substance Abuse History					
Substances (any)	67%	55%	77%	29%	.184
Alcohol	38%	15%	62%	29%	.050
Cocaine	43%	25%	54%	28%	.365
Heroine	38%	25%	54%	29%	.396
Marijuana	48%	30%	62%	28%	.279
Other	14%	10%	15%	0%	.847
Current Substance Abuse					
Substances (any)	29%	25%	15%	0%	.475
Alcohol	24%	10%	8%	14%	.581
Marijuana	10%	15%	8%	0%	.872
Legal Issues					
Legal Issues	19%	10%	38%	0%	.130
Parole or probation	52%	5%	46%	0%	.001
Ever arrested	48%	60%	23%	14%	.080
Ever victim of violence	57%	70%	62%	60%	.860
Ever perpetrator of violence	38%	25%	23%	20%	.731

Figure 11. Lifetime history of substance abuse

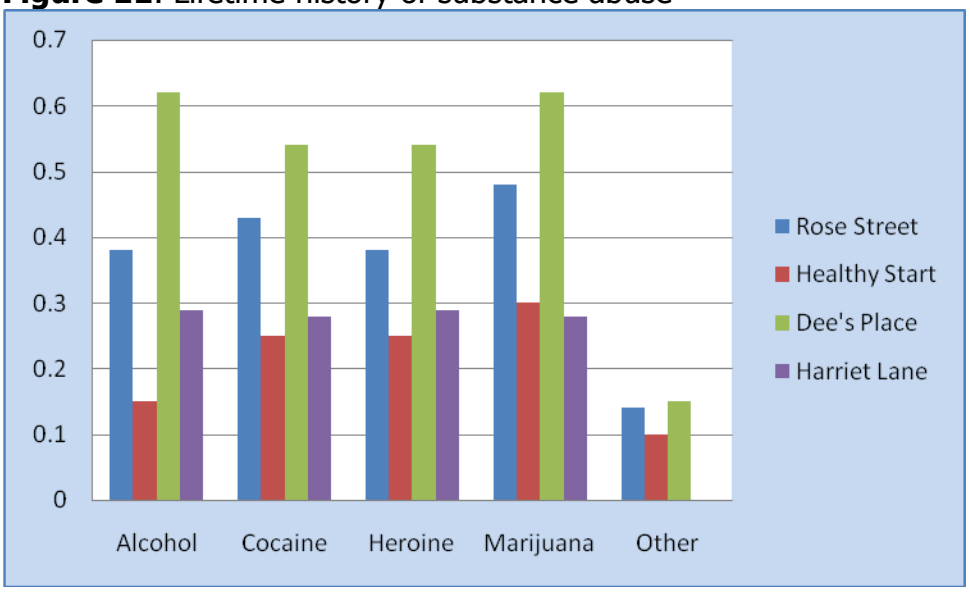
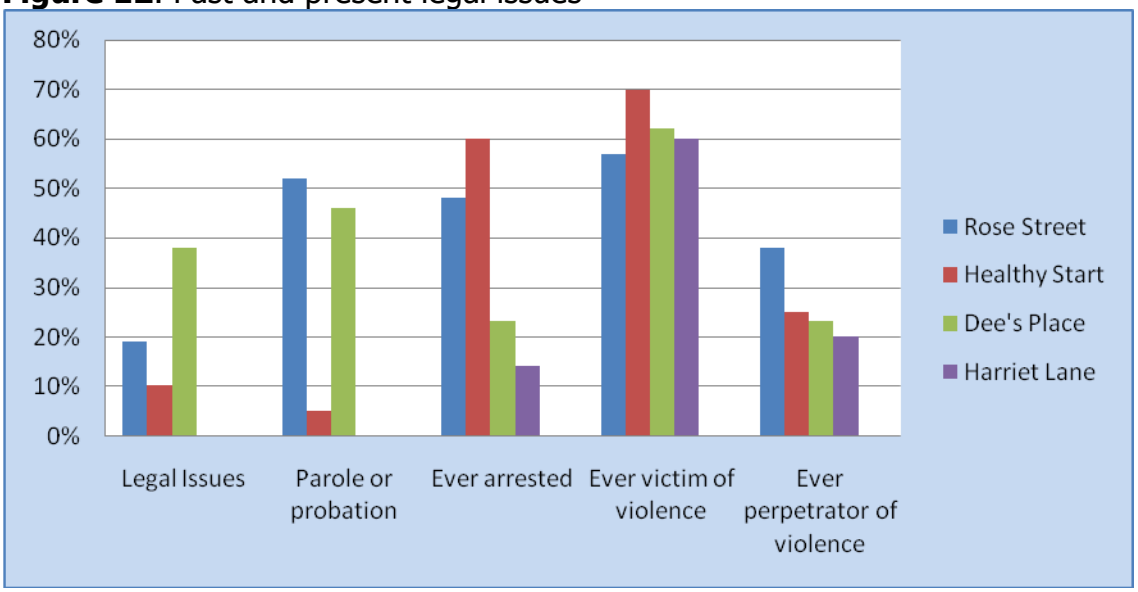


Figure 12. Past and present legal issues



III. Comparison of baseline characteristics of clients from original vs. new sites

This section summarizes some key differences in baseline characteristics between clients from the original Project Connections sites (Rose Street Community Center, Men's Health Center, and Healthy Start Eastside) and the new sites (Dee's Place, Harriet Lane Clinic, and Healthy Start Westside). Baseline data were collected on all existing clients on July 2007 and every month thereafter for each new client. As of April 2009, baseline data are available on a total of 200 clients:

Program sites	Frequency	Percent
Rose Street	74	37%
Men's Health Center	27	14%
Healthy Start Eastside	67	33.5%
Dee's Place	13	6.5%
Harriet Lane Clinic	7	4%
Health Start Westside	12	6%

For this section, baseline characteristics of clients from the original Project Connections' sites (n=168) were compared those from the new sites (n=32). The table below presents only characteristics for which there was a significant difference between clients from the old and new sites.

Table 10. Differences in baseline characteristics comparing clients from old and new sites

Characteristic	Original sites (n=168)	New sites (n=32)	*P*-value
Received education beyond high school	20%	42%	.010
Housing status			
Independent/renting	18%	59%	
Transitional	24%	3%	
Recovery	11%	0%	
With friends or family	30%	31%	
Section 8	5%	3%	
Public housing	1%	0%	
Shelter Plus Care	2%	0%	
Shelter	2%	3%	
Homeless	3%	0%	
Other	4%	0%	<.001
Receiving Medical assistance	40%	59%	.034
Lifetime history of substance abuse	76%	56%	.019
Lifetime history of arrests	67%	31%	<.001

We observe that clients from the new sites were overall more educated and reported living in more stable housing at entry into the Project Connections program. We also observe that a significantly greater proportion of clients from the new sites were receiving medical assistance at baseline. Finally, lifetime history of substance use and arrests were significantly greater for clients in the original sites as compared to clients from the new sites.

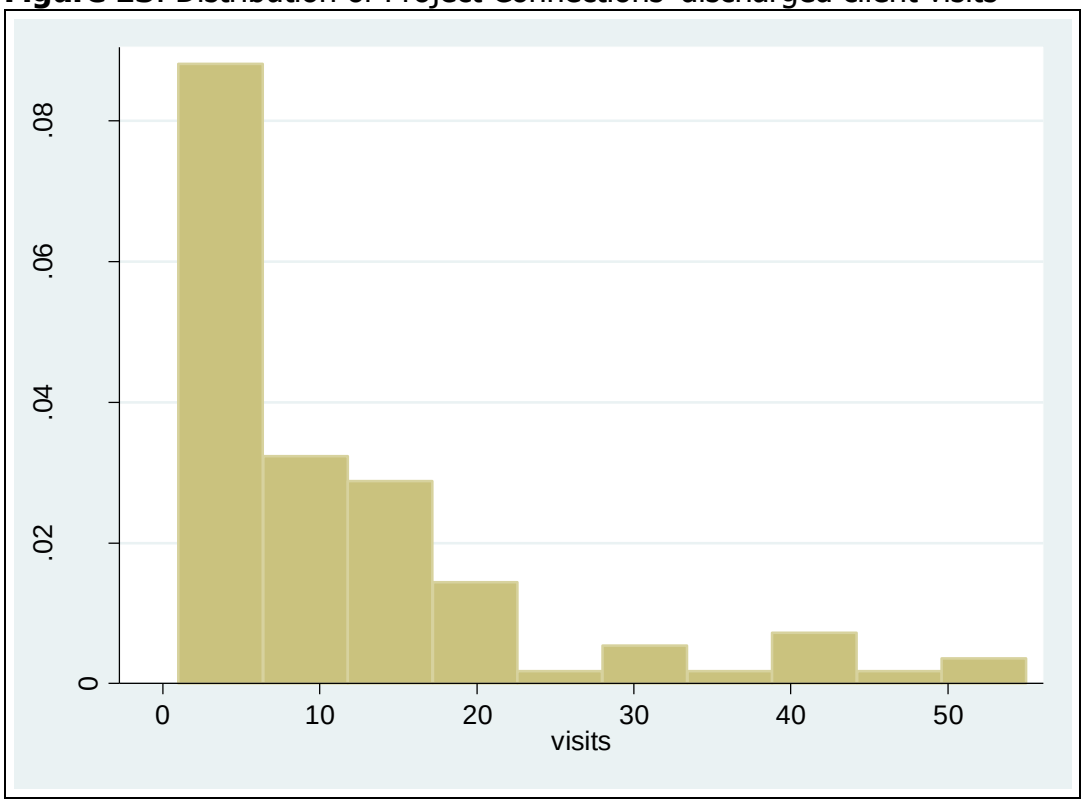
There were no significant differences in employment status and frequency of full time employment comparing baseline characteristics of clients from the original and new sites. With the exception of receiving some education beyond high school, there were no differences in education history between the two groups. With the exception of Medical Assistance, there were no differences in entitlements received at baseline between the two groups. There were also no significant differences in the frequency of clients reporting use of and compliance with psychiatric and somatic medication at baseline between the two groups. While there was a significant difference in the proportion of clients reporting lifetime history of substance abuse between the original and new sites, substance abuse at baseline did not differ significantly between the two groups. With the exception of a lifetime history of arrest, there were no differences between the two groups with respect to the proportion reporting legal issues at baseline and lifetime exposure to violence (both victimization and perpetration).

Notwithstanding modest differences between the two cohorts, in general the overall picture of a fragile population with serious and complex problems remains the same.

IV. Discharges

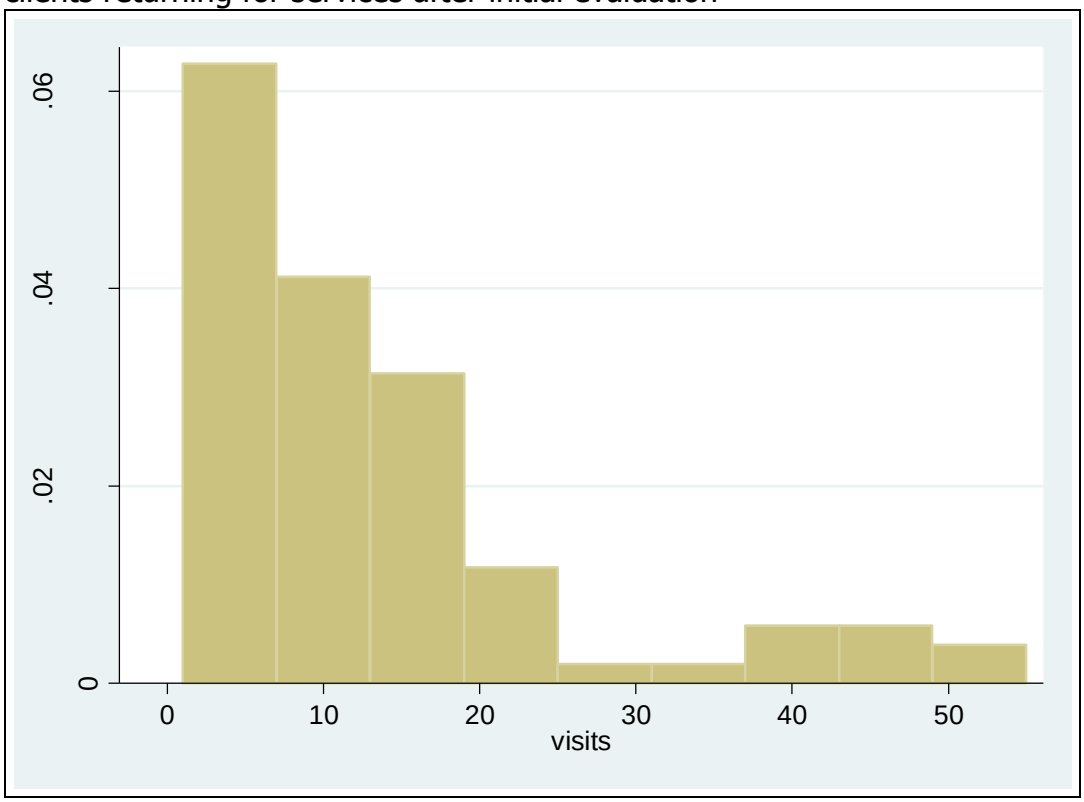
A total of 103 clients, 54% of whom were female, have been discharged from Project Connections from July 2007 thru April 2009. The mean and median numbers of visits among clients discharged during the entire follow-up period were 11.3 and 8 visits, respectively. The frequency distribution of visits is illustrated below:

Figure 13. Distribution of Project Connections' discharged client visits



83% of clients who received an initial evaluation returned for services. If we consider only those clients who returned following an initial evaluation (n=85), the mean and median number of visits were 11.3 and 13.1, respectively. The frequency distribution of visits is illustrated below:

Figure 14. Distribution of Project Connections' discharged client visits among clients returning for services after initial evaluation



The following figure and table provide a description of Project Connections' clients clinical status and disposition at discharge, respectively:

Figure 15. Clinical status at discharge (n=100)

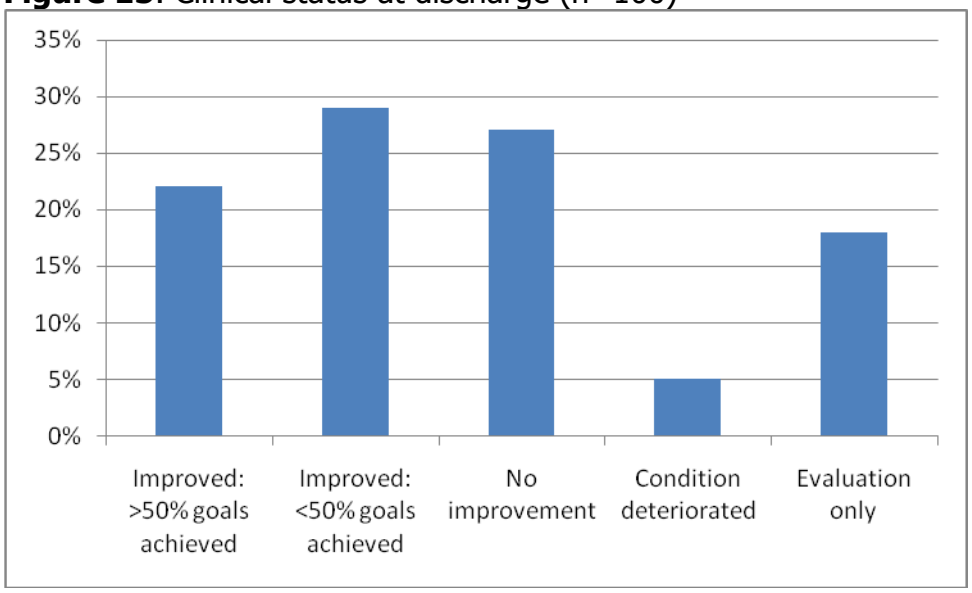


Table 11. Disposition at discharge (n=96)

Patient has chosen another provider	6%
Patient moved	19%
Patient chooses not to return to treatment	68%
Other*	7%

** Other includes completing therapy (n=1), leaving against medical advice (n=1), incarceration (n=2), and administrative discharge (n=1)*

Attending a greater number of sessions was significantly associated with a clinical status rating of "improved" at discharge (either "improved : >50% of goals achieved" or "improved: <50% of goals achieved") in comparison to clients whose conditions did not improve or deteriorated. Excluding clients who received an evaluation only (n=19), clients who improved (n=49) participated in an average of 17 sessions as compared to an average of 7.7 sessions for clients who did not improve or whose condition deteriorated ($p<.001$). Gender was not statistically associated with improvement.

Overview and Concluding Thoughts

Implementation of the Project continues to be rewarding but challenging. Overall, the goals of expanding to three new sites plus the youth shelter have been met. The initial engagement problems encountered when the Project began remained at the new sites but the Project team's expertise in overcoming the engagement barriers held us in good stead and the caseloads built much more rapidly then at the original sites. This speaks well for future Project expansion in Baltimore and elsewhere in Maryland and other states.

Data continue to support the thesis that this population is highly vulnerable and in need of services. Anecdotal reports similarly support the premise that providing services in existing neighborhood centers greatly increases access and further that it is not enough to provide only traditional clinical services without more. Instead, substantial resources must be devoted to building a relationship with other staff at the sites and people in the neighborhood and it is this trust - building that facilitates the engagement with the mental health services. Paradoxically, because of the continuing volatility and vulnerability of the sites themselves, it is the fact that the team is both connected with but separate from the site that allows the Project to move forward and continue its stability.

One interesting note pertaining to the difference between the sites is that the site that is currently has slowest enrollment curve is Harriet Lane. This is not at all what the team projected. Harriet Lane is a medical pediatric clinic and is the most stable and professional site. It is also where the staff supported the Project from the get- go and they are very helpful in promoting usage by their clients.

Nonetheless, the pace of enrollment is slowest at this site. It is too early to make sound conclusions based on this data but it is something to watch.

In this Report, we have primarily provided a demographic sketch as well as noting the number of clients served at each site and status of the expansion objectives. Additionally, the Report includes outcomes related to "access", i.e., the number of visits of engaged clients, and also to the rough measure of improvement. Both of these outcomes indicate positive results. In the next Report, we will provide a closer look at the progression of outcomes in more detail.